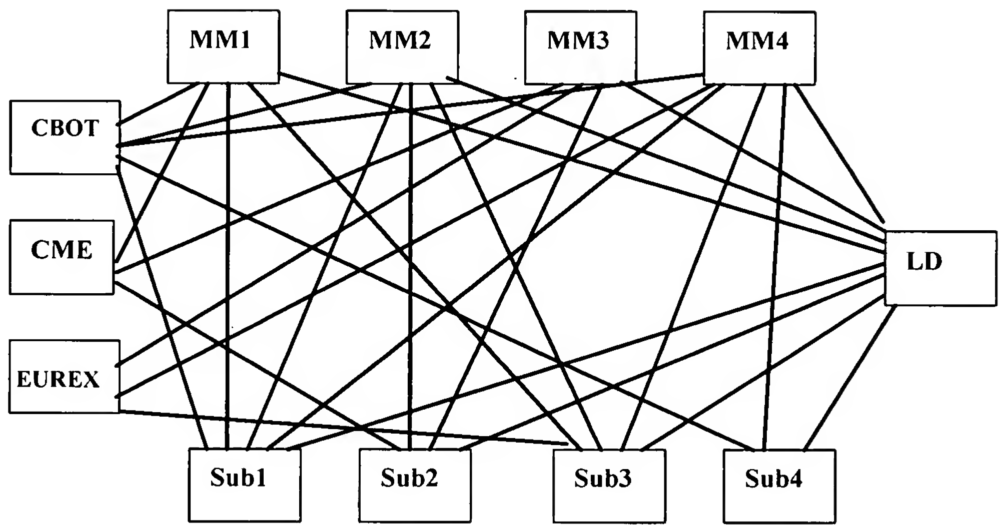


Figure 1A

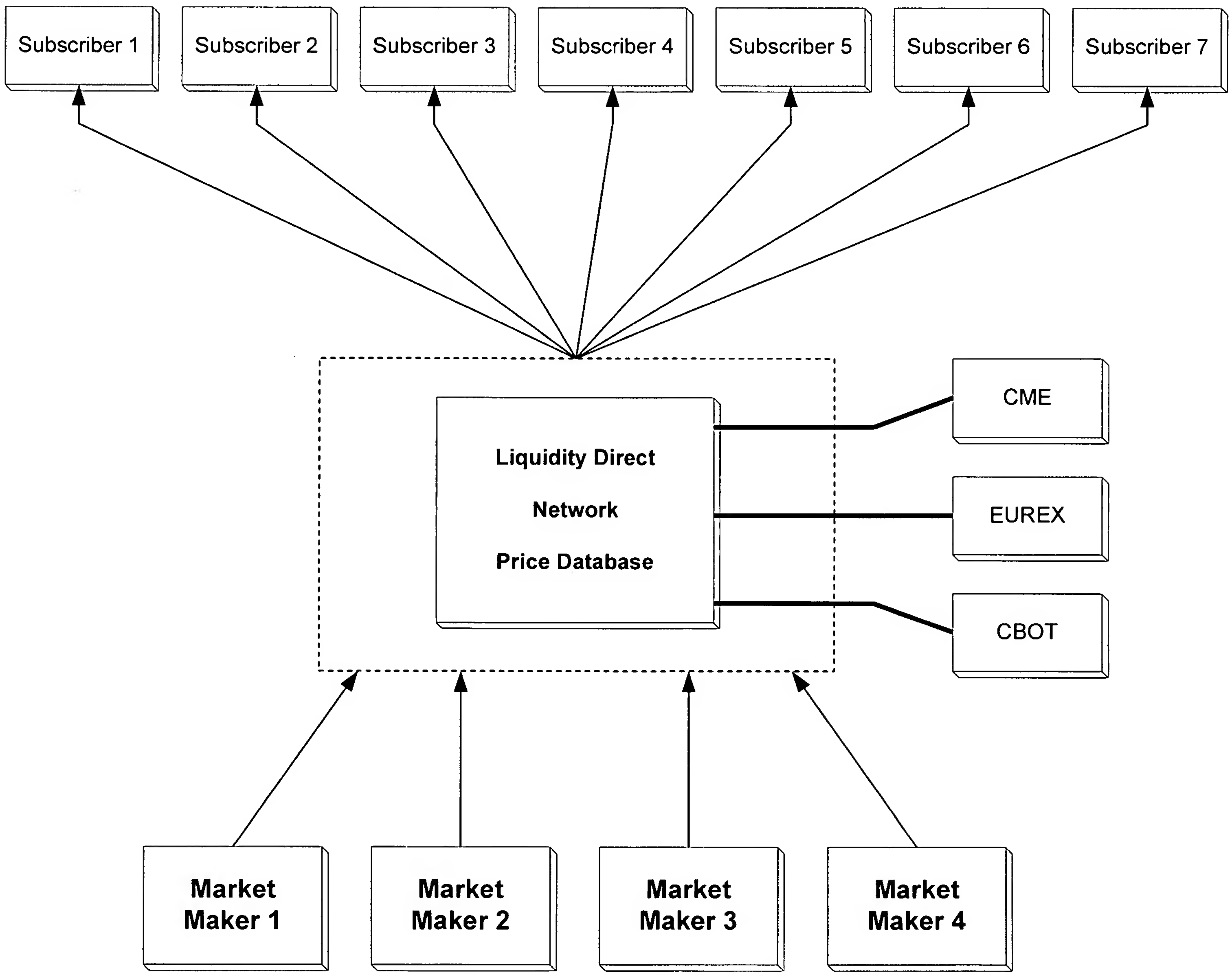

Subscriber 1
Subscriber 2
Subscriber 3
Subscriber 4
Subscriber 5
Subscriber 6
Subscriber 7
Liquidity Direct
Network
Price Database
CME
EUREX
CBOT
Market Maker 1
Market Maker 2
Market Maker 3
Market Maker 4

Figure 1B

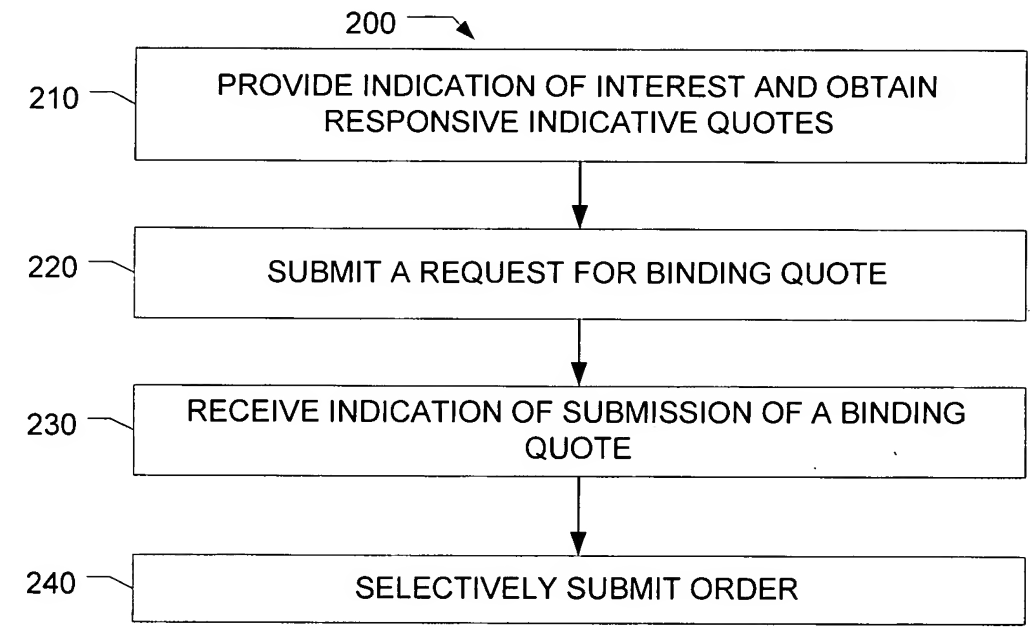


Figure 2A

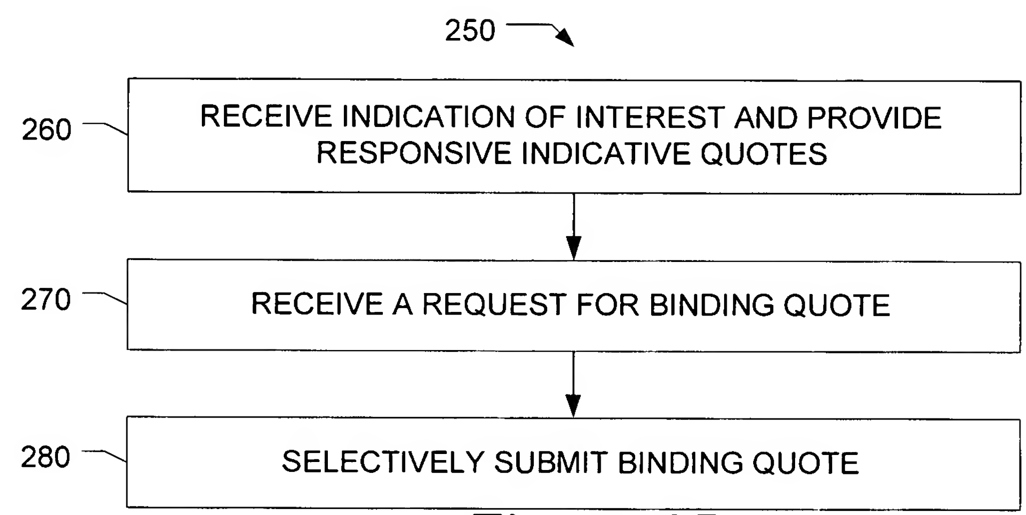


Figure 2B

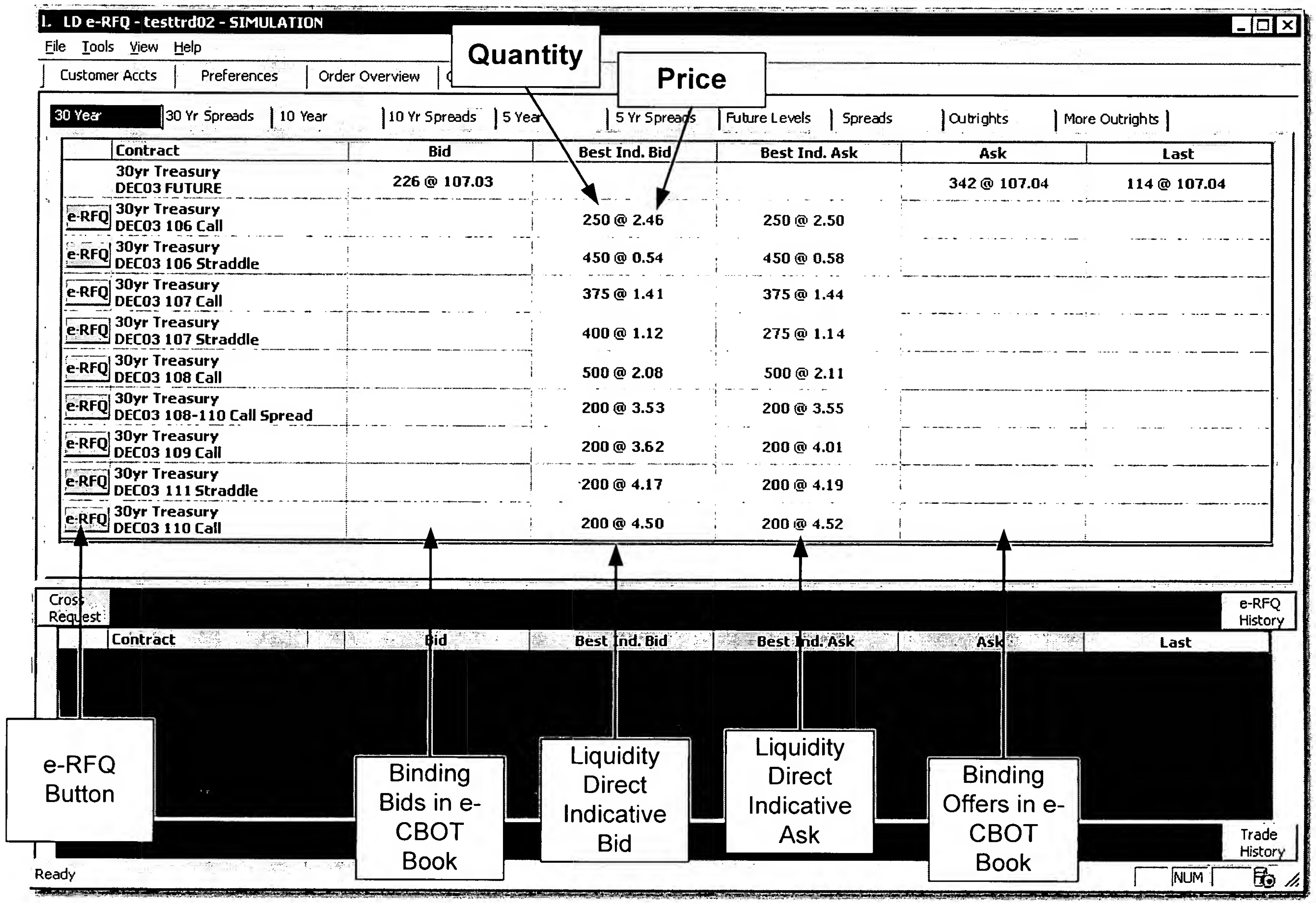

LD e-RFQ - testtrd02 - SIMULATION
File Tools View Help
Customer Accts
Preferences
Order Overview
Quantity
Price
30 Year
30 Yr Spreads
10 Year
10 Yr Spreads
5 Year
5 Yr Spreads
Future Levels
Spreads
Outrights
More Outrights
Contract | Bid | Best Ind. Bid | Best Ind. Ask | Ask | Last
30yr Treasury DEC03 FUTURE | 226 @ 107.03 | | | 342 @ 107.04 | 114 @ 107.04
e-RFQ 30yr Treasury DEC03 106 Call | | 250 @ 2.46 | 250 @ 2.50 | |
e-RFQ 30yr Treasury DEC03 106 Straddle | | 450 @ 0.54 | 450 @ 0.58 | |
e-RFQ 30yr Treasury DEC03 107 Call | | 375 @ 1.41 | 375 @ 1.44 | |
e-RFQ 30yr Treasury DEC03 107 Straddle | | 400 @ 1.12 | 275 @ 1.14 | |
e-RFQ 30yr Treasury DEC03 108 Call | | 500 @ 2.08 | 500 @ 2.11 | |
e-RFQ 30yr Treasury DEC03 108-110 Call Spread | | 200 @ 3.53 | 200 @ 3.55 | |
e-RFQ 30yr Treasury DEC03 109 Call | | 200 @ 3.62 | 200 @ 4.01 | |
e-RFQ 30yr Treasury DEC03 111 Straddle | | 200 @ 4.17 | 200 @ 4.19 | |
e-RFQ 30yr Treasury DEC03 110 Call | | 200 @ 4.50 | 200 @ 4.52 | |
Cross Request
e-RFQ History
Contract | Bid | Best Ind. Bid | Best Ind. Ask | Ask | Last
e-RFQ Button
Binding Bids in e-CBOT Book
Liquidity Direct Indicative Bid
Liquidity Direct Indicative Ask
Binding Offers in e-CBOT Book
Trade History
Ready
NUM

Figure 3A

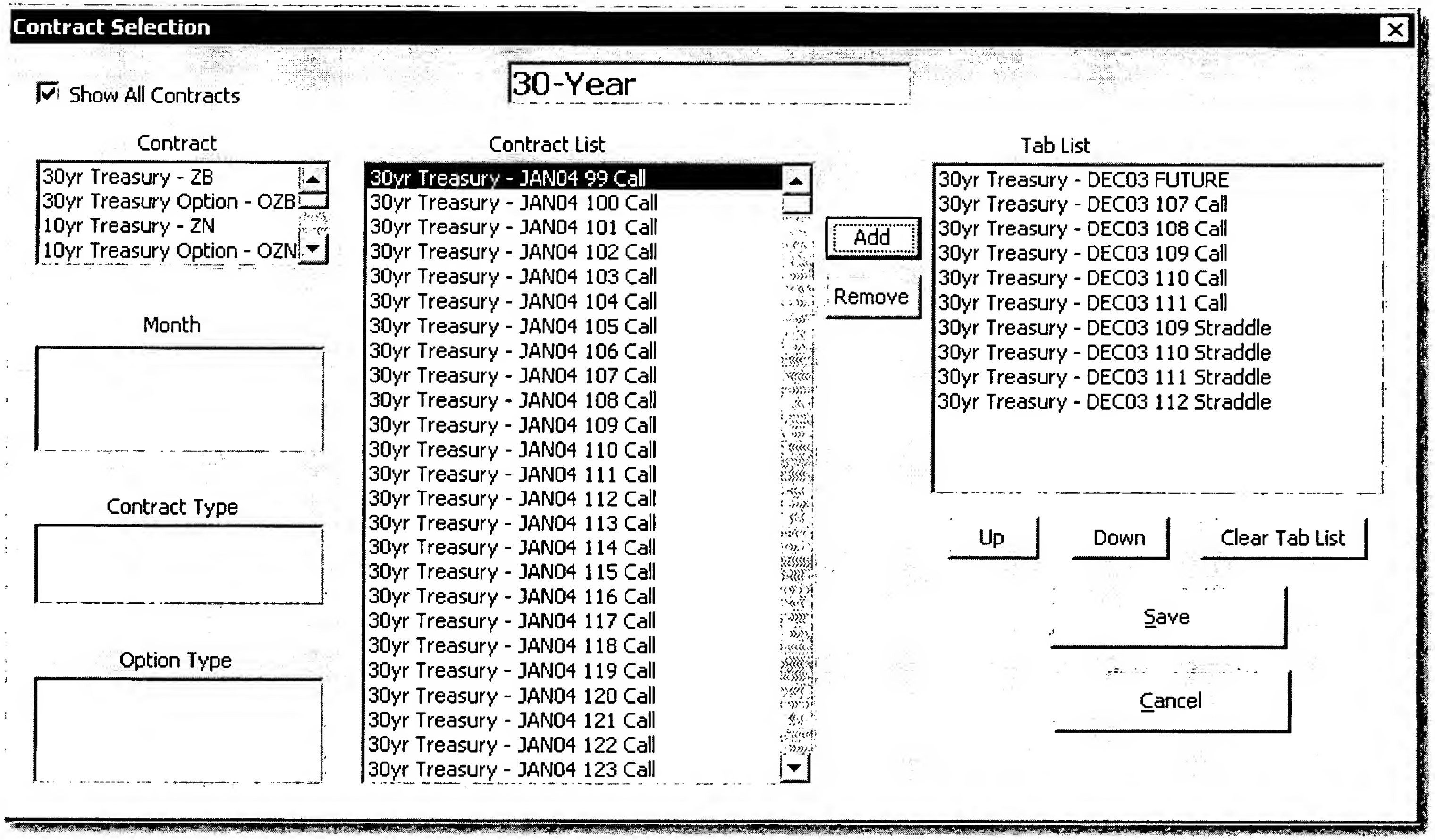

Contract Selection
Show All Contracts
30-Year
Contract
30yr Treasury - ZB
30yr Treasury Option - OZB
10yr Treasury - ZN
10yr Treasury Option - OZN
Month
Contract Type
Option Type
Contract List
30yr Treasury - JAN04 99 Call
30yr Treasury - JAN04 100 Call
30yr Treasury - JAN04 101 Call
30yr Treasury - JAN04 102 Call
30yr Treasury - JAN04 103 Call
30yr Treasury - JAN04 104 Call
30yr Treasury - JAN04 105 Call
30yr Treasury - JAN04 106 Call
30yr Treasury - JAN04 107 Call
30yr Treasury - JAN04 108 Call
30yr Treasury - JAN04 109 Call
30yr Treasury - JAN04 110 Call
30yr Treasury - JAN04 111 Call
30yr Treasury - JAN04 112 Call
30yr Treasury - JAN04 113 Call
30yr Treasury - JAN04 114 Call
30yr Treasury - JAN04 115 Call
30yr Treasury - JAN04 116 Call
30yr Treasury - JAN04 117 Call
30yr Treasury - JAN04 118 Call
30yr Treasury - JAN04 119 Call
30yr Treasury - JAN04 120 Call
30yr Treasury - JAN04 121 Call
30yr Treasury - JAN04 122 Call
30yr Treasury - JAN04 123 Call
Add
Remove
Tab List
30yr Treasury - DEC03 FUTURE
30yr Treasury - DEC03 107 Call
30yr Treasury - DEC03 108 Call
30yr Treasury - DEC03 109 Call
30yr Treasury - DEC03 110 Call
30yr Treasury - DEC03 111 Call
30yr Treasury - DEC03 109 Straddle
30yr Treasury - DEC03 110 Straddle
30yr Treasury - DEC03 111 Straddle
30yr Treasury - DEC03 112 Straddle
Up
Down
Clear Tab List
Save
Cancel

Figure 3B

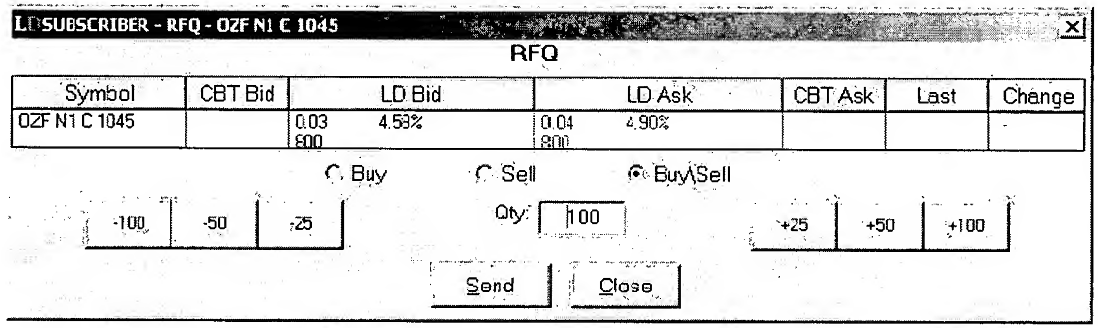


Figure 3C

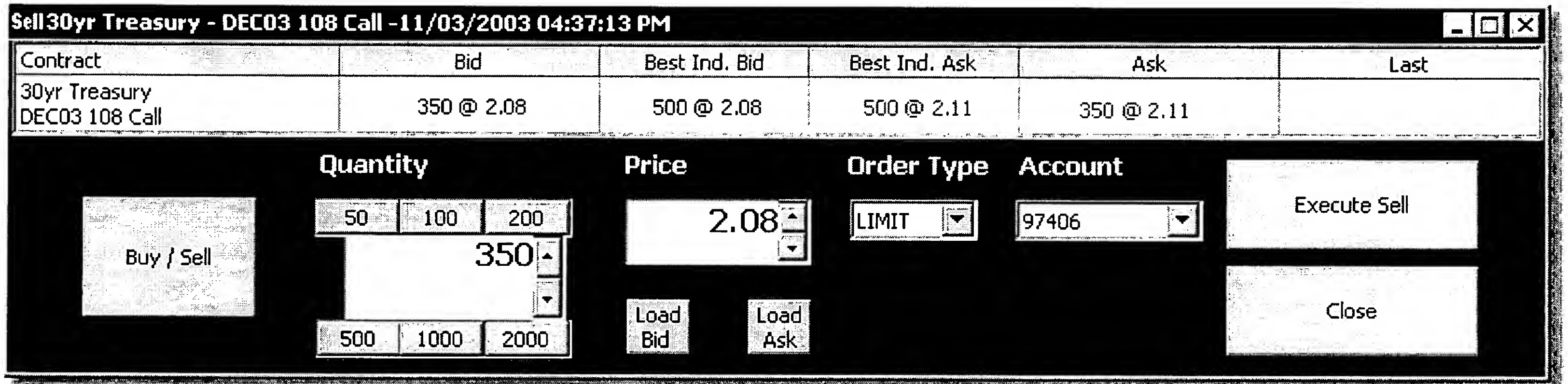


Figure 3D

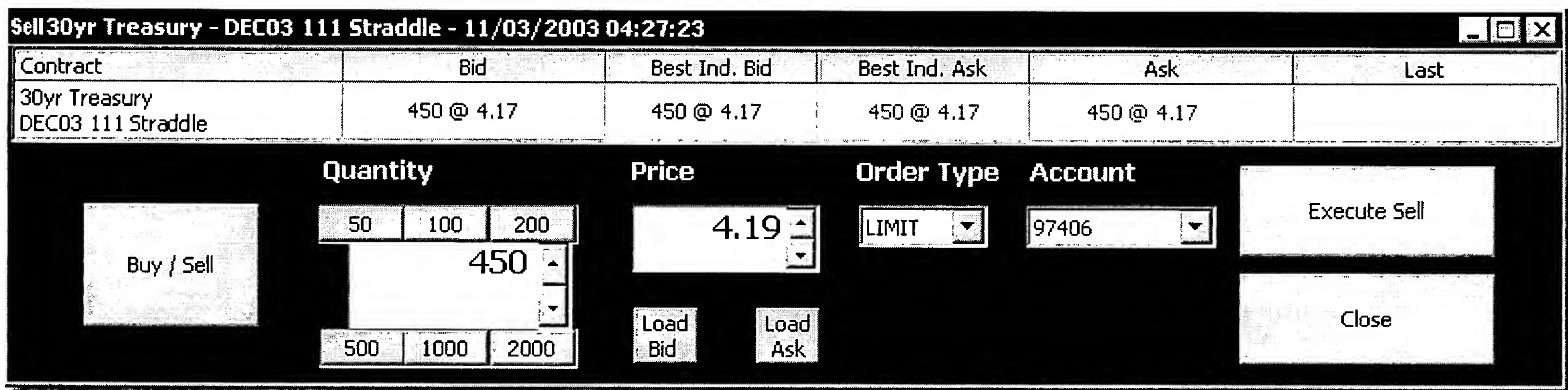


Figure 3E

BEST AVAILABLE COPY

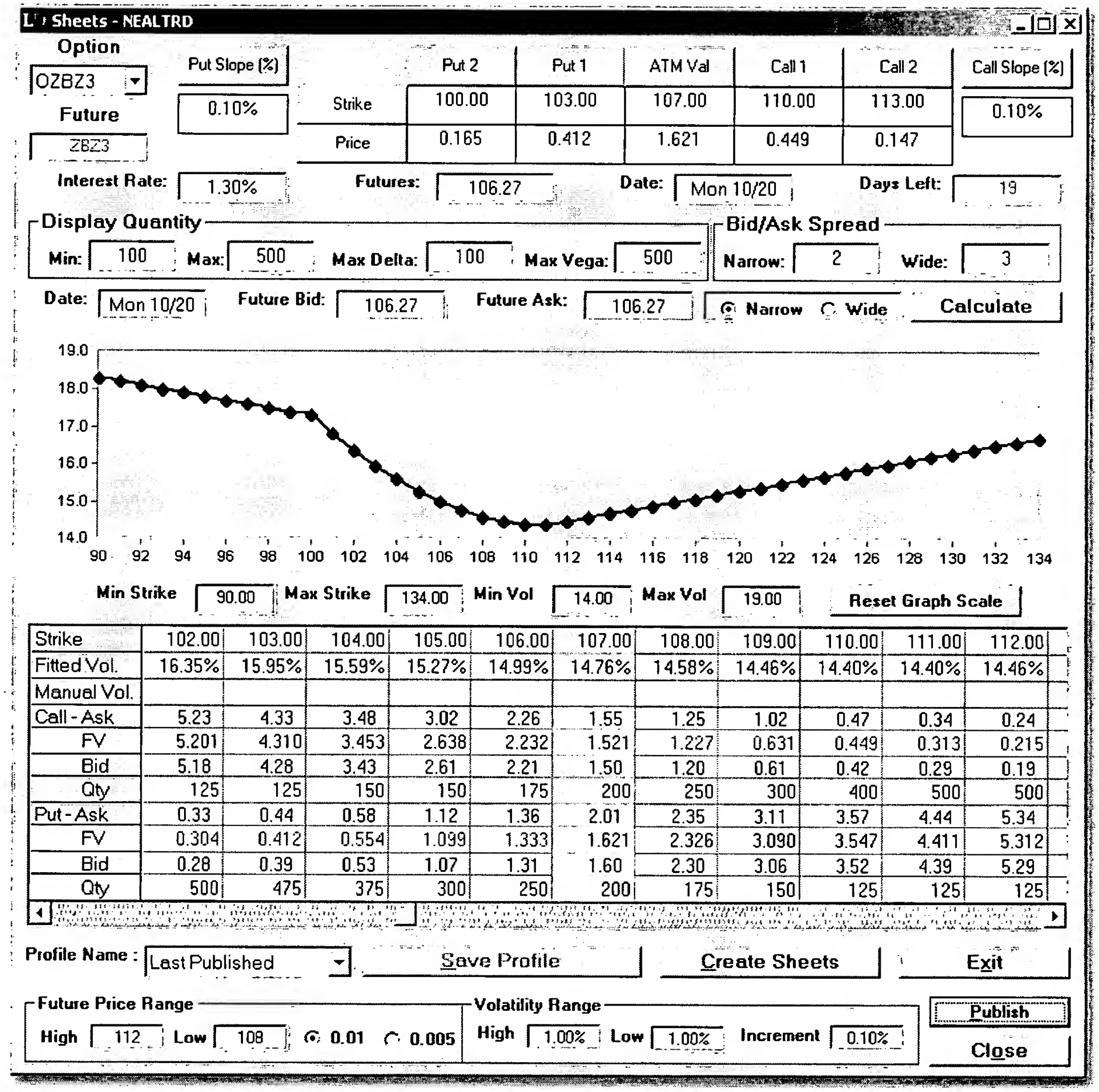
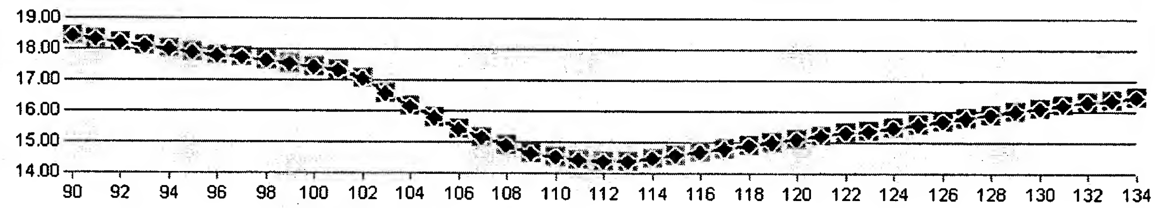

Sheets - NEALTRD
Option
OZBZ3
Future
ZBZ3
Put Slope (%)
0.10%
Strike
Price
Put 2 100.00 0.165
Put 1 103.00 0.412
ATM Val 107.00 1.621
Call 1 110.00 0.449
Call 2 113.00 0.147
Call Slope (%)
0.10%
Interest Rate: 1.30%
Futures: 106.27
Date: Mon 10/20
Days Left: 19
Display Quantity
Min: 100 Max: 500 Max Delta: 100 Max Vega: 500
Bid/Ask Spread
Narrow: 2 Wide: 3
Date: Mon 10/20 Future Bid: 106.27 Future Ask: 106.27
Narrow Wide
Calculate
19.0 18.0 17.0 16.0 15.0 14.0
90 92 94 96 98 100 102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134
Min Strike 90.00 Max Strike 134.00 Min Vol 14.00 Max Vol 19.00
Reset Graph Scale
Strike 102.00 103.00 104.00 105.00 106.00 107.00 108.00 109.00 110.00 111.00 112.00
Fitted Vol. 16.35% 15.95% 15.59% 15.27% 14.99% 14.76% 14.58% 14.46% 14.40% 14.40% 14.46%
Manual Vol.
Call - Ask 5.23 4.33 3.48 3.02 2.26 1.55 1.25 1.02 0.47 0.34 0.24
FV 5.201 4.310 3.453 2.638 2.232 1.521 1.227 0.631 0.449 0.313 0.215
Bid 5.18 4.28 3.43 2.61 2.21 1.50 1.20 0.61 0.42 0.29 0.19
Qty 125 125 150 150 175 200 250 300 400 500 500
Put - Ask 0.33 0.44 0.58 1.12 1.36 2.01 2.35 3.11 3.57 4.44 5.34
FV 0.304 0.412 0.554 1.099 1.333 1.621 2.326 3.090 3.547 4.411 5.312
Bid 0.28 0.39 0.53 1.07 1.31 1.60 2.30 3.06 3.52 4.39 5.29
Qty 500 475 375 300 250 200 175 150 125 125 125
Profile Name : Last Published
Save Profile
Create Sheets
Exit
Future Price Range
High 112 Low 108 0.01 0.005
Volatility Range
High 1.00% Low 1.00% Increment 0.10%
Publish
Close

Figure 4A

Tweak - NEALTRD - 1

Option: OZBZ3 | Future Bid 108.140 | 108.160 Future Ask | ATM Straddle 3.53 / 3.60



Strike Min 90 | Strike Max 134 | Vol. Min 14.00 | Vol. Max 19.00 | Min. Group 0 | Max Group 0

Sheets (•) Live ( ) Temp | Qty. Multiplier 0.00 | Bid Spread (•) Narrow ( ) Wide | Ask Spread (•) Narrow ( ) Wide

	13	14	15	16	17	18	*19	20	21	22	23	24
Strike	102.00	103.00	104.00	105.00	106.00	107.00	108.00	109.00	110.00	111.00	112.00	113.00
Baseline Vol.	17.08%	16.61%	16.19%	15.81%	15.46%	15.16%	14.90%	14.68%	14.53%	14.43%	14.40%	14.42%
Increment	-	-	-	-	-	-		-	-	-	-	-
Tweaked Vol.	-	-	-	-	-	-		-	-	-	-	-
Call Ask	6.53	5.60	5.05	4.18	3.33	2.54	2.15	1.46	1.18	0.60	0.44	0.31
Call FV	6.491	5.560	4.832	4.135	3.294	2.498	2.113	1.423	1.150	0.573	0.407	0.284
Call Bid	6.45	5.52	4.61	4.09	3.25	2.46	2.08	1.39	1.12	0.54	0.38	0.26
Call Qty.	125	125	125	125	150	150	175	225	275	325	425	500
Call Tweak Qty.	-	-	-	-	-	-		-	-	-	-	-
Put Ask	0.22	0.29	0.38	0.51	1.03	1.23	1.49	2.16	2.53	3.31	4.15	5.02
Put FV	0.195	0.263	0.355	0.477	0.816	1.199	1.453	2.122	2.489	3.271	4.105	4.622
PutBid	0.17	0.24	0.33	0.45	0.61	1.17	1.42	2.09	2.45	3.23	4.06	4.58
Put Qty.	500	500	500	425	325	275	225	175	150	150	125	125
Put Tweak Qty.	-	-	-	-	-	-		-	-	-	-	-

All Up | All Down | Grp Up | Grp Down | Sel Up | Sel Down | Pull All | Show All | Pull Sel | Show Sel

Refresh | Spread Edges | Send | Exit

	Straddle	Strangle	Call Calendar	Put Calendar	Call Vertical	Put Vertical	Combo
Narrow	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Wide	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Qty	200	200	200	200	200	200	200

Update | Close

Figure 4B

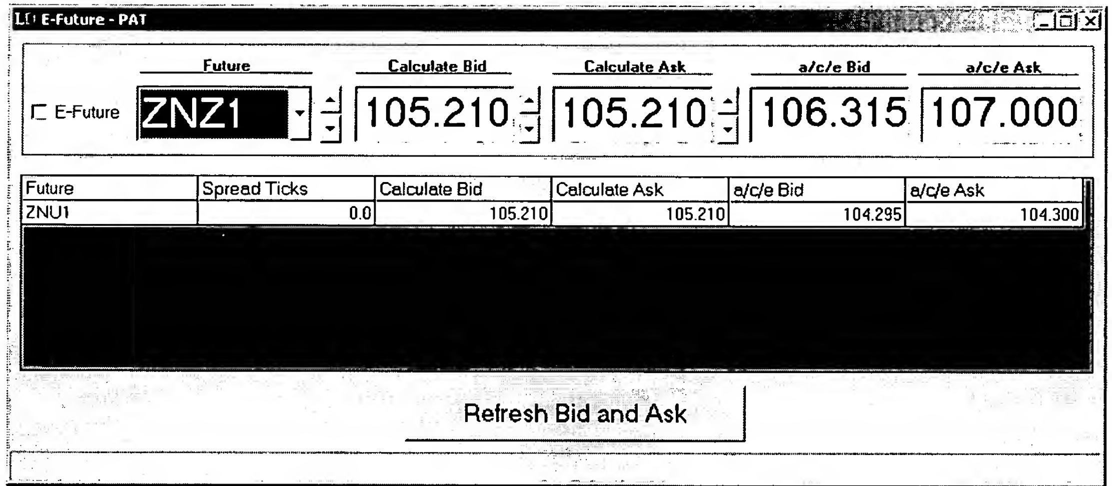
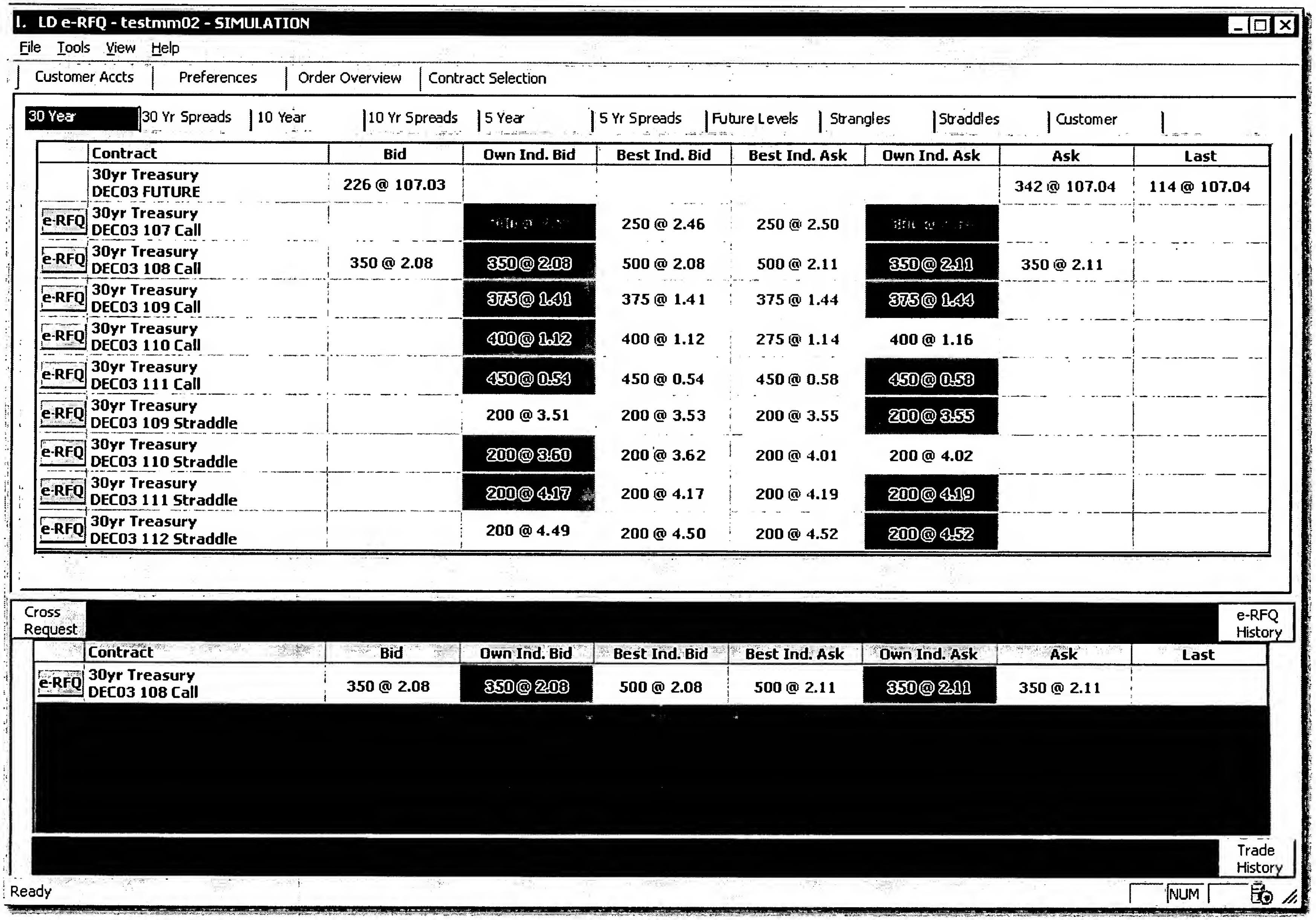

E-Future - PAT
E-Future
Future
Calculate Bid
Calculate Ask
a/c/e Bid
a/c/e Ask
ZNZ1
105.210
105.210
106.315
107.000
Future
Spread Ticks
Calculate Bid
Calculate Ask
a/c/e Bid
a/c/e Ask
ZNU1
0.0
105.210
105.210
104.295
104.300
Refresh Bid and Ask

Figure 4C



I. LD e-RFQ - testmm02 - SIMULATION
File Tools View Help
Customer Accts | Preferences | Order Overview | Contract Selection
30 Year | 30 Yr Spreads | 10 Year | 10 Yr Spreads | 5 Year | 5 Yr Spreads | Future Levels | Strangles | Straddles | Customer
Contract | Bid | Own Ind. Bid | Best Ind. Bid | Best Ind. Ask | Own Ind. Ask | Ask | Last
30yr Treasury DEC03 FUTURE | 226 @ 107.03 | 342 @ 107.04 | 114 @ 107.04
e-RFQ 30yr Treasury DEC03 107 Call | 250 @ 2.46 | 250 @ 2.50
e-RFQ 30yr Treasury DEC03 108 Call | 350 @ 2.08 | 350 @ 2.08 | 500 @ 2.08 | 500 @ 2.11 | 350 @ 2.11 | 350 @ 2.11
e-RFQ 30yr Treasury DEC03 109 Call | 375 @ 1.41 | 375 @ 1.41 | 375 @ 1.44 | 375 @ 1.44
e-RFQ 30yr Treasury DEC03 110 Call | 400 @ 1.12 | 400 @ 1.12 | 275 @ 1.14 | 400 @ 1.16
e-RFQ 30yr Treasury DEC03 111 Call | 450 @ 0.54 | 450 @ 0.54 | 450 @ 0.58 | 450 @ 0.58
e-RFQ 30yr Treasury DEC03 109 Straddle | 200 @ 3.51 | 200 @ 3.53 | 200 @ 3.55 | 200 @ 3.55
e-RFQ 30yr Treasury DEC03 110 Straddle | 200 @ 3.60 | 200 @ 3.62 | 200 @ 4.01 | 200 @ 4.02
e-RFQ 30yr Treasury DEC03 111 Straddle | 200 @ 4.17 | 200 @ 4.17 | 200 @ 4.19 | 200 @ 4.19
e-RFQ 30yr Treasury DEC03 112 Straddle | 200 @ 4.49 | 200 @ 4.50 | 200 @ 4.52 | 200 @ 4.52
Cross Request
e-RFQ History
Contract | Bid | Own Ind. Bid | Best Ind. Bid | Best Ind. Ask | Own Ind. Ask | Ask | Last
e-RFQ 30yr Treasury DEC03 108 Call | 350 @ 2.08 | 350 @ 2.08 | 500 @ 2.08 | 500 @ 2.11 | 350 @ 2.11 | 350 @ 2.11
Trade History
Ready
NUM

Figure 5A

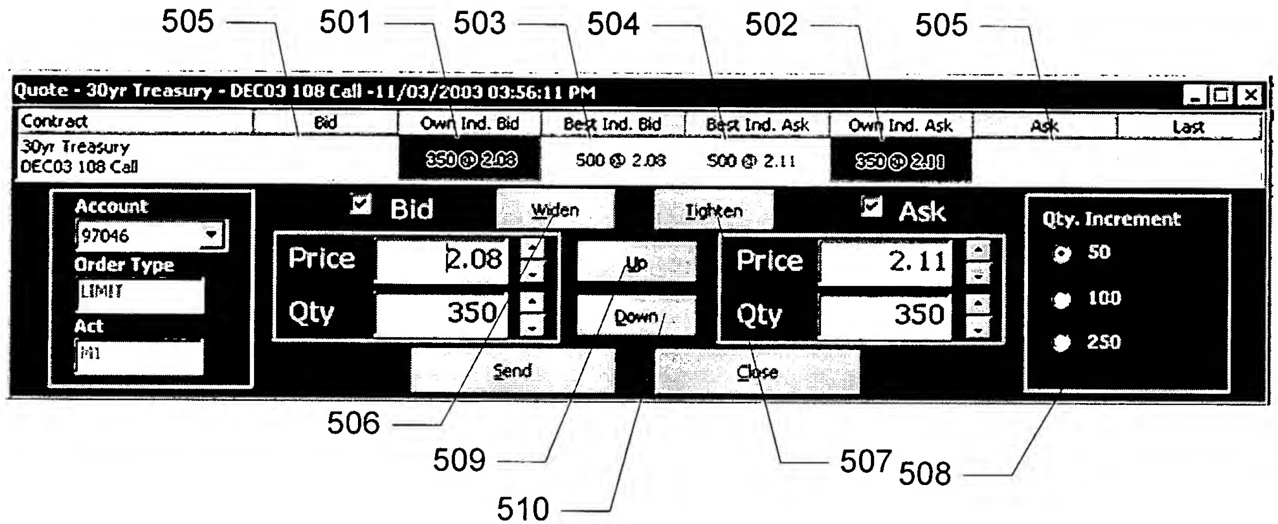


Figure 5B

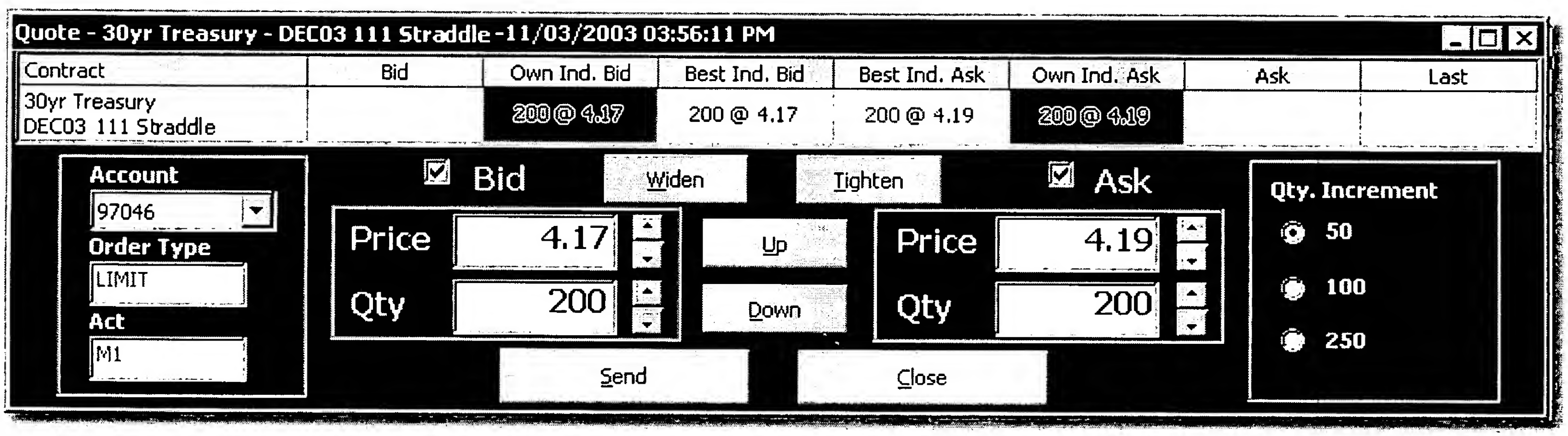


Figure 5C

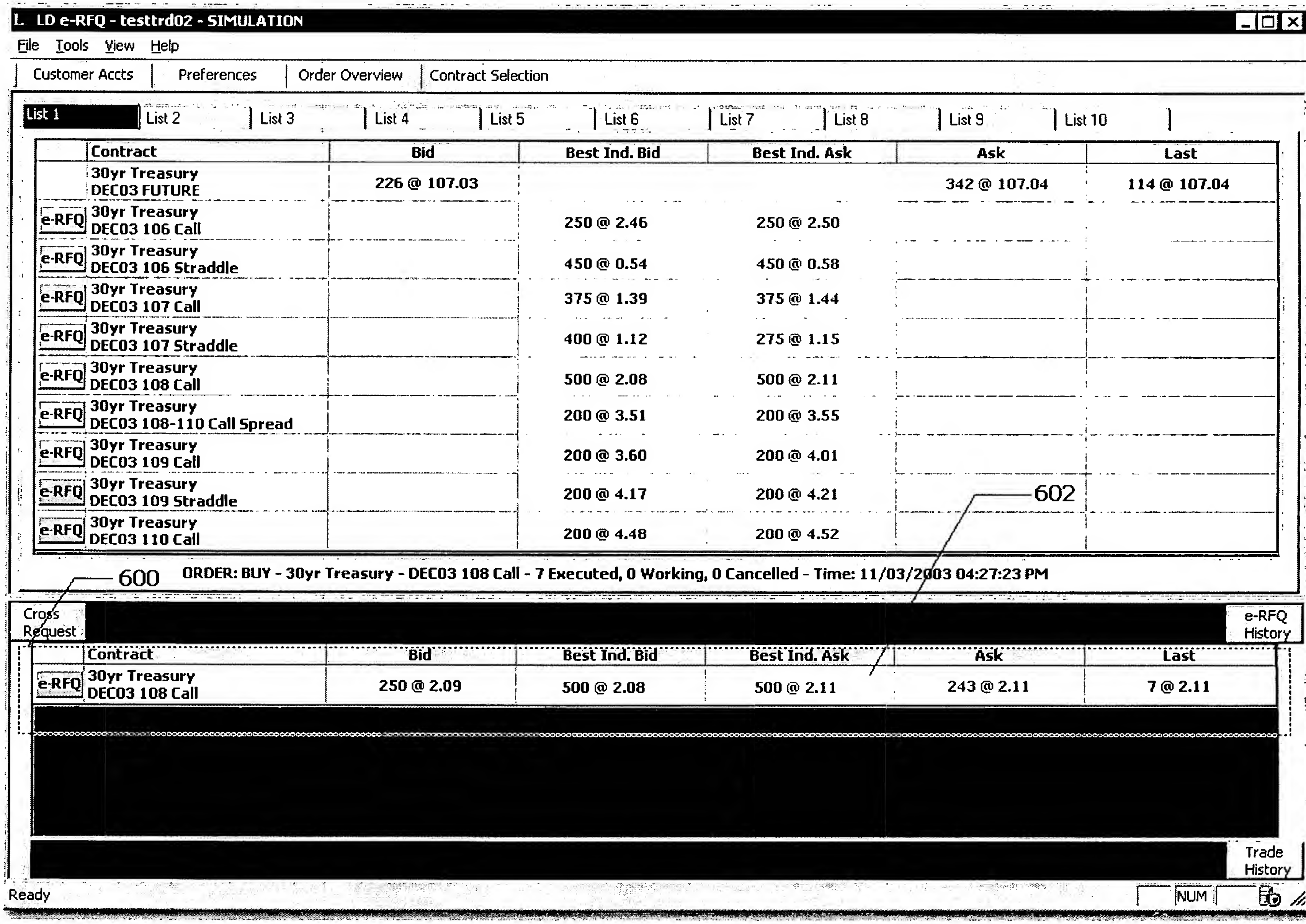

LD e-RFQ - testtrd02 - SIMULATION
File Tools View Help
Customer Accts
Preferences
Order Overview
Contract Selection
List 1
List 2
List 3
List 4
List 5
List 6
List 7
List 8
List 9
List 10
Contract
Bid
Best Ind. Bid
Best Ind. Ask
Ask
Last
30yr Treasury DEC03 FUTURE
226 @ 107.03
342 @ 107.04
114 @ 107.04
e-RFQ
30yr Treasury DEC03 106 Call
250 @ 2.46
250 @ 2.50
30yr Treasury DEC03 106 Straddle
450 @ 0.54
450 @ 0.58
30yr Treasury DEC03 107 Call
375 @ 1.39
375 @ 1.44
30yr Treasury DEC03 107 Straddle
400 @ 1.12
275 @ 1.15
30yr Treasury DEC03 108 Call
500 @ 2.08
500 @ 2.11
30yr Treasury DEC03 108-110 Call Spread
200 @ 3.51
200 @ 3.55
30yr Treasury DEC03 109 Call
200 @ 3.60
200 @ 4.01
30yr Treasury DEC03 109 Straddle
200 @ 4.17
200 @ 4.21
30yr Treasury DEC03 110 Call
200 @ 4.48
200 @ 4.52
602
600
ORDER: BUY - 30yr Treasury - DEC03 108 Call - 7 Executed, 0 Working, 0 Cancelled - Time: 11/03/2003 04:27:23 PM
Cross Request
e-RFQ History
Contract
Bid
Best Ind. Bid
Best Ind. Ask
Ask
Last
30yr Treasury DEC03 108 Call
250 @ 2.09
500 @ 2.08
500 @ 2.11
243 @ 2.11
7 @ 2.11
Trade History
Ready
NUM

Figure 6A

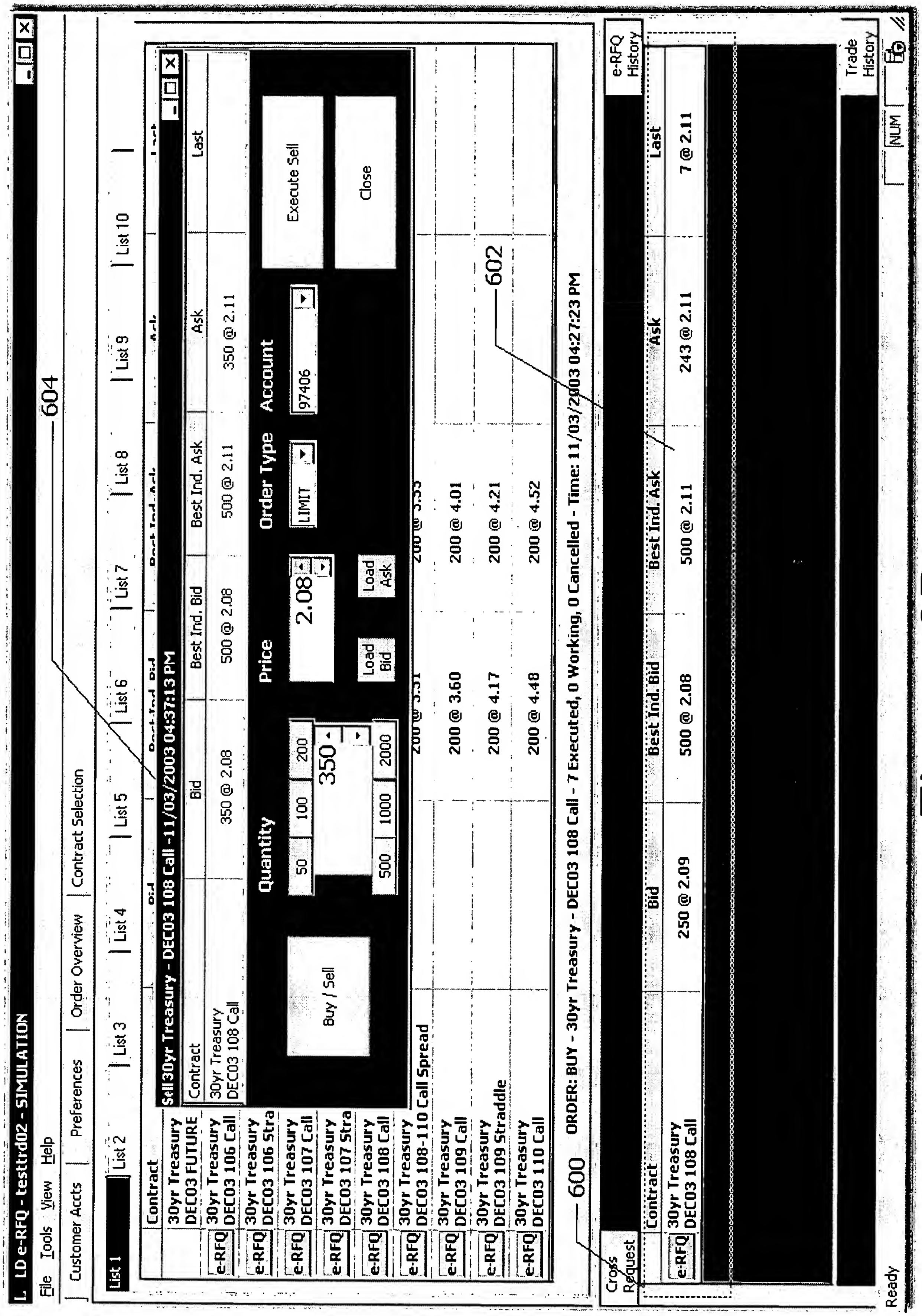


Figure 6B

BEST AVAILABLE COPY

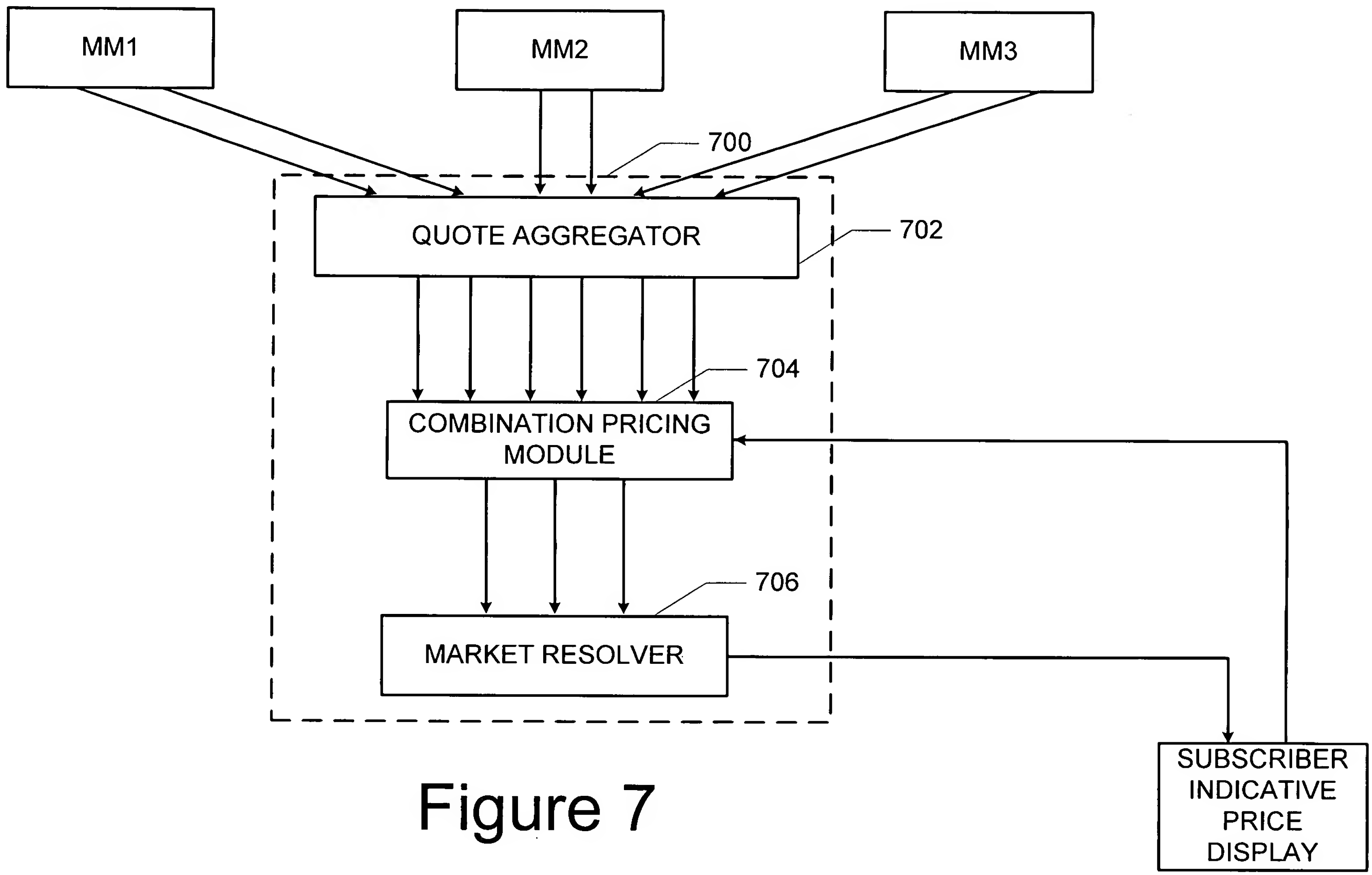
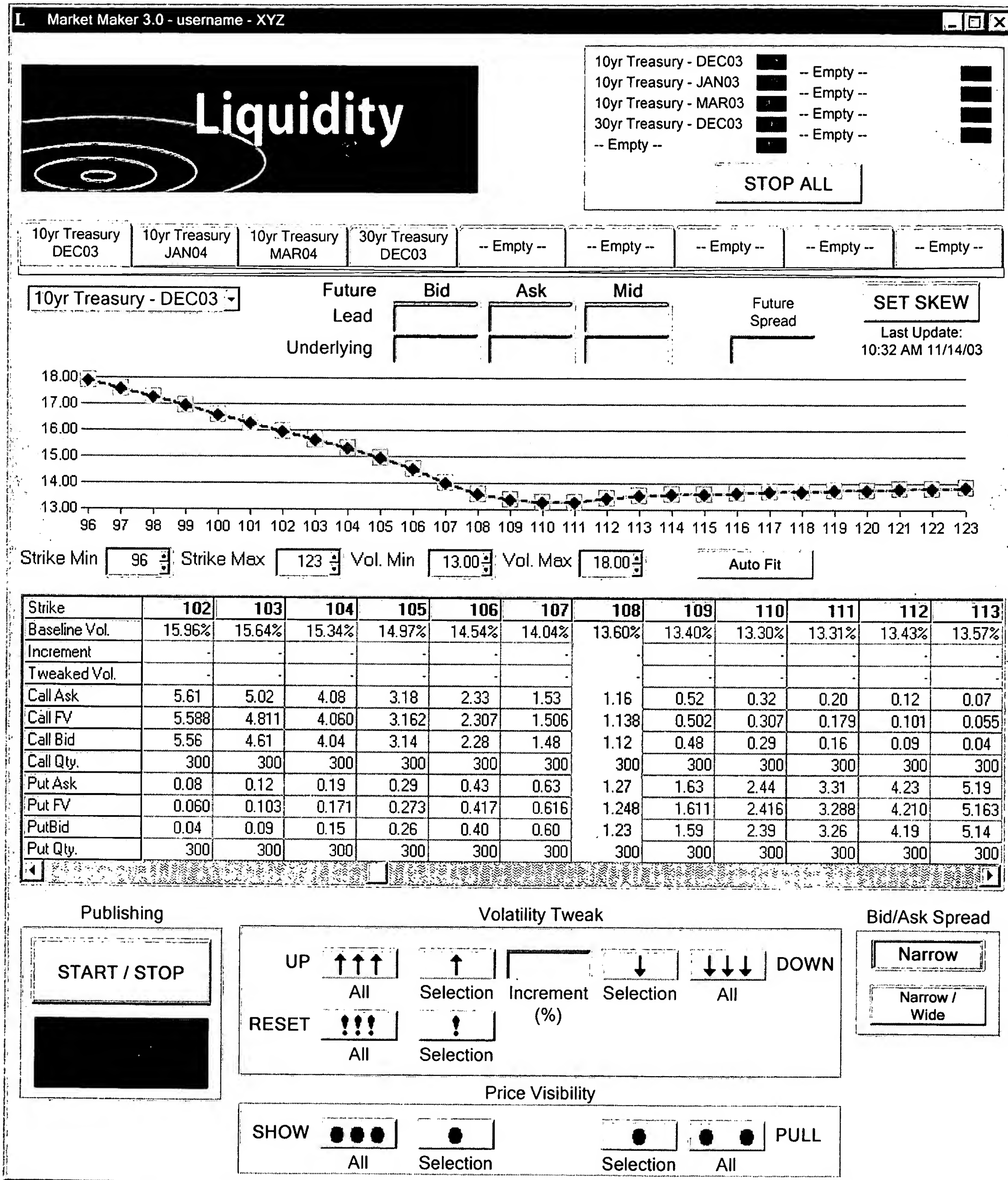

MM1
MM2
MM3
700
QUOTE AGGREGATOR
702
704
COMBINATION PRICING MODULE
706
MARKET RESOLVER
SUBSCRIBER INDICATIVE PRICE DISPLAY

Figure 7



Strike	102	103	104	105	106	107	108	109	110	111	112	113
Baseline Vol.	15.96%	15.64%	15.34%	14.97%	14.54%	14.04%	13.60%	13.40%	13.30%	13.31%	13.43%	13.57%
Increment	-	-	-	-	-	-	-	-	-	-	-	-
Tweaked Vol.	-	-	-	-	-	-	-	-	-	-	-	-
Call Ask	5.61	5.02	4.08	3.18	2.33	1.53	1.16	0.52	0.32	0.20	0.12	0.07
Call FV	5.588	4.811	4.060	3.162	2.307	1.506	1.138	0.502	0.307	0.179	0.101	0.055
Call Bid	5.56	4.61	4.04	3.14	2.28	1.48	1.12	0.48	0.29	0.16	0.09	0.04
Call Qty.	300	300	300	300	300	300	300	300	300	300	300	300
Put Ask	0.08	0.12	0.19	0.29	0.43	0.63	1.27	1.63	2.44	3.31	4.23	5.19
Put FV	0.060	0.103	0.171	0.273	0.417	0.616	1.248	1.611	2.416	3.288	4.210	5.163
PutBid	0.04	0.09	0.15	0.26	0.40	0.60	1.23	1.59	2.39	3.26	4.19	5.14
Put Qty.	300	300	300	300	300	300	300	300	300	300	300	300

Figure 8A

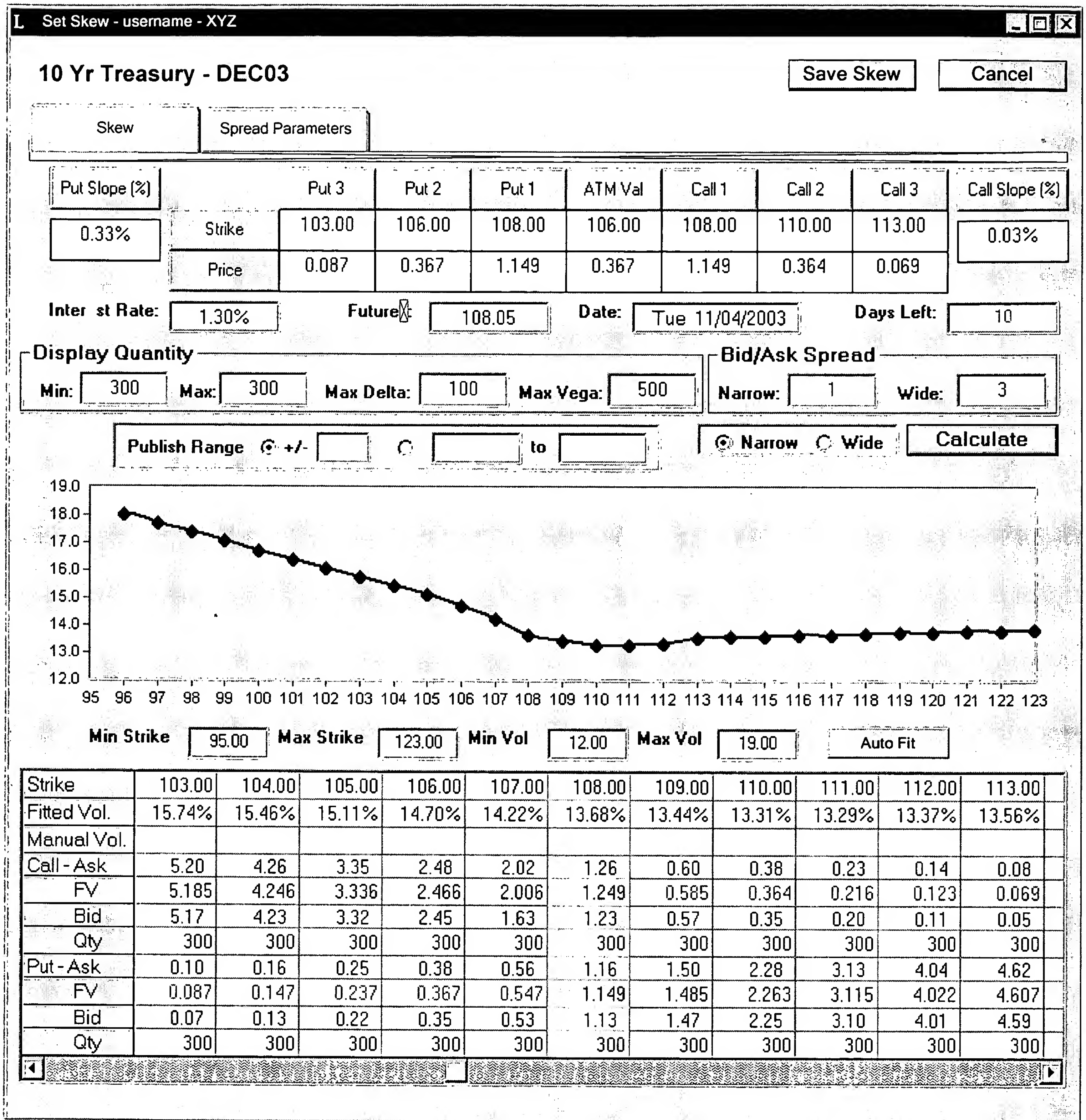

Set Skew - username - XYZ
10 Yr Treasury - DEC03
Save Skew
Cancel
Skew
Spread Parameters
Put Slope (%)
0.33%
Put 3 Put 2 Put 1 ATM Val Call 1 Call 2 Call 3
Strike 103.00 106.00 108.00 106.00 108.00 110.00 113.00
Price 0.087 0.367 1.149 0.367 1.149 0.364 0.069
Call Slope (%)
0.03%
Inter st Rate: 1.30%
Future: 108.05
Date: Tue 11/04/2003
Days Left: 10
Display Quantity
Min: 300 Max: 300 Max Delta: 100 Max Vega: 500
Bid/Ask Spread
Narrow: 1 Wide: 3
Publish Range +/- to
Narrow Wide
Calculate
19.0 18.0 17.0 16.0 15.0 14.0 13.0 12.0
95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123
Min Strike 95.00 Max Strike 123.00 Min Vol 12.00 Max Vol 19.00
Auto Fit
Strike 103.00 104.00 105.00 106.00 107.00 108.00 109.00 110.00 111.00 112.00 113.00
Fitted Vol. 15.74% 15.46% 15.11% 14.70% 14.22% 13.68% 13.44% 13.31% 13.29% 13.37% 13.56%
Manual Vol.
Call - Ask 5.20 4.26 3.35 2.48 2.02 1.26 0.60 0.38 0.23 0.14 0.08
FV 5.185 4.246 3.336 2.466 2.006 1.249 0.585 0.364 0.216 0.123 0.069
Bid 5.17 4.23 3.32 2.45 1.63 1.23 0.57 0.35 0.20 0.11 0.05
Qty 300 300 300 300 300 300 300 300 300 300 300
Put - Ask 0.10 0.16 0.25 0.38 0.56 1.16 1.50 2.28 3.13 4.04 4.62
FV 0.087 0.147 0.237 0.367 0.547 1.149 1.485 2.263 3.115 4.022 4.607
Bid 0.07 0.13 0.22 0.35 0.53 1.13 1.47 2.25 3.10 4.01 4.59
Qty 300 300 300 300 300 300 300 300 300 300 300

Figure 8B

Set Skew - username - XYZ

10 Yr Treasury - DEC03

Save Skew | Cancel

Skew | Spread Parameters

Load From... | Clear All | Save Spread Parameters | Cancel

	Narrow	Wide	Offset	Size	
Straddle	1	3	0.25	250	Clear
Strangle	1	3	0.25	250	Clear
Call Vertical	1	3	0.25	250	Clear
Put Vertical	1	3	0.25	250	Clear
Call Calendar	1	3	0.25	250	Clear
Put Calendar	1	3	0.25	250	Clear
Spread Type 7	1	3	0.25	250	Clear
Spread Type 8	1	3	0.25	250	Clear
Spread Type 9	1	3	0.25	250	Clear
Spread Type 10	1	3	0.25	250	Clear
Spread Type 11	1	3	0.25	250	Clear
Spread Type 12	1	3	0.25	250	Clear
Spread Type 13	1	3	0.25	250	Clear
Spread Type 14	1	3	0.25	250	Clear
Spread Type 15	1	3	0.25	250	Clear

	Narrow	Wide	Offset	Size	
Spread Type 16	0	0	0	0	Clear
Spread Type 17	0	0	0	0	Clear
Spread Type 18	0	0	0	0	Clear
Spread Type 19	0	0	0	0	Clear
Spread Type 20	0	0	0	0	Clear
Spread Type 21	0	0	0	0	Clear
Spread Type 22	0	0	0	0	Clear
Spread Type 23	0	0	0	0	Clear
Spread Type 24	0	0	0	0	Clear
Spread Type 25	0	0	0	0	Clear
Spread Type 26	0	0	0	0	Clear
Spread Type 27	0	0	0	0	Clear
Spread Type 28	0	0	0	0	Clear
Spread Type 29	0	0	0	0	Clear
Spread Type 30	0	0	0	0	Clear

Figure 8C